

Title (en)
Direct drive valve and force motor assembly.

Title (de)
Direkt angetriebenes Ventil und Drehmotor.

Title (fr)
Soupape à entraînement direct et moteur à couple.

Publication
EP 0164469 A1 19851218 (EN)

Application
EP 84306028 A 19840903

Priority
US 60781284 A 19840507

Abstract (en)
Assembly includes a direct flexible quill drive (32) between the motor output shaft (22) and valve plunger (30). When the output of the motor (3) is rotary, the centerline of the motor output shaft is oriented 90 DEG relative to the centerline of the valve (30) and has an eccentric offset that provides the gearing to transfer the angular rotation of the motor into linear motion of the valve. The motor may readily be connected and disconnected from the drive quill by a simple pushing or pulling motion without requiring a lock of any sort therebetween. The drive quill (32) desirably has a generally rectangular cross-section with the thinner dimension being in the operational bend plane of the quill to provide the desired flexibility in the operational bend plane and stiffness in the opposite plane. Intermediate the ends of the quill may be an enlarged center dam portion (51) to provide column stiffening of the quill when the quill is deflected under high load to contact a surrounding wall portion (35).

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F15B 13/044

IPC 8 full level
F16K 31/04 (2006.01); **F15B 13/044** (2006.01); **F15B 13/04** (2006.01)

CPC (source: EP)
F15B 13/0442 (2013.01); **F15B 2013/0412** (2013.01)

Citation (search report)

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